



# Small Scale Solutions for your Farm

Managing for Native Pollinators

## Do You Have Problems with:

- Blossoms that don't bear fruit
- Badly shaped fruits
- Undersized fruit
- Fruits having poor taste

Your crops may not be getting adequate pollination!

Animals or insects that move pollen from flower to flower so that seeds are produced are known as pollinators. Common pollinators include bees, butterflies, hummingbirds, moths, some flies, and nectar feeding bats. Unfortunately, populations of these essential animals are declining. Managing areas to benefit pollinators will help them to survive, reproduce, and adequately pollinate your crops.

## Why Manage for Pollinators

- Pollination is required in approximately 75 percent of crops
- Native pollinators are part of the natural environment, available, and their numbers can be increased in simple and inexpensive ways
- An increase in pollinator populations may improve the quality and productivity of your crops
- Pollinators help keep the ecosystem healthy and functioning
- Habitats used by pollinators are attractive to other beneficial insects

## Farming for Crop Pollinators

A study of various native bees in the pollination of watermelons, cherry tomatoes, and hybrid sunflowers in California found that native bees are more effective in pollinating watermelons than the honey bees that farmers routinely rented to pollinate their crops.



Crop production and quality is impacted by pollinators.



Native pollinators have the greatest impact in crop production.





Management on and around your farm will determine the abundance of native bees and other pollinators. To increase the numbers of pollinators three resources are needed: nesting sites, a variety of flowering plants, and a refuge from insecticides. These may already be present, in small patches or marginal areas on your farm. Focus your efforts on sunny, open, undisturbed areas such as field margins, sunny patches of bare soil, roadsides, ditch banks, and woodland edges. Open areas can be managed by disturbing (disc, mow, or prescribed burn) part of the area. Then allow vegetation to remain from two to three years on the rest.

Consider implementing the following practices to further enhance habitat for native pollinators:

- Plant a variety of native wildflowers, trees and shrubs
- Provide pesticide free water sources (e.g., bird baths, fountains, dripping faucets, small ponds)
- Minimize tillage
- Plant cover crops that include flowering plants (e.g., clover and other legumes) and allow them to flower before terminating

## Farming for Native Pollinators

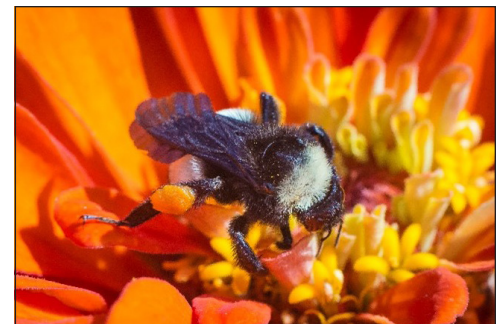
- Leave some areas fallow and/or sow with wildflowers
- Leave areas next to fields and road edges untilled and unsprayed
- Create hedgerows with a variety of plants that have overlapping flowering periods
- Leave some dead trees (snags) standing for shelter and nesting
- Make and install “bee blocks” for wood-nesting bees
- Leave piles of bare, mounded soil where ground-nesting bees may build nests
- Develop and follow an Integrated Pest Management (IPM) plan



Adult butterflies feed on nectar and pollinate crops.



Clover cover crops can provide habitat for pollinators.



An undisturbed wildflower meadow is attractive to people, pollinators, beneficial insects, and other.







## Pest Management is Important

To protect pollinators, pesticide use should be minimized, especially when crops are flowering. An insecticide applied to eliminate a crop-eating insect may also kill native pollinators. An Integrated Pest Management (IPM) plan is a critical component of managing habitat for pollinators. This plan can help you to reduce the use of insecticides and herbicides, while maintaining crop yields and populations of pollinators and other beneficial insects.

## Native Plants

If you decide to plant flowering plants to create foraging habitat, choose native plants that provide flowers, and thus pollen and nectar, throughout the growing season. A sequence of plants providing a diversity of flowers throughout the growing season will support a wide range of pollinator species that feed at different times.

Locally native plants, which are adapted to grow in the climate and soils of your region, are good sources of pollen and nectar for pollinators, and should require very little maintenance. If purchasing plants or seeds, ask where the seed originated from and buy those from local sources when and where possible.

## Associated Costs

Costs may vary widely depending upon the habitat already existing on the farm and new practices added. Typical costs might include:

- Equipment time, fuel, maintenance
- Labor for establishment and annual maintenance
- Purchase and planting of seeds, shrubs, and trees
- Less crop production area if some areas are no longer cropped



Proper management of your plant and native pollinator resources will help your operation.



Native Pollinator species should become part of your farm business plan.





## Technical and Financial Help Is Available

Whether you measure your farm in terms of feet or acres, your local Natural Resources Conservation Service (NRCS) office has experienced conservationists that can help you develop a Conservation Plan to conserve, maintain, and restore the natural resources on your land and improve the long-term health of your operation.

There is no charge for our assistance. Simply contact your local office to set up an appointment. You may also be eligible to receive financial assistance. Your NRCS office will explain any programs that are available so you can make the best decision for your operation. All NRCS programs and services are voluntary.

## For More Information

Visit the [Natural Resources Conservation Service](#) or visit [farmers.gov/service-locator](https://farmers.gov/service-locator) to find your local NRCS office. You can also check with your local USDA Service Center, then make an appointment to determine next steps for your conservation goals.

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NRCS conservationist assisting small scale farmer with developing a customized conservation plan.

